

a negative pressure generating device that controls at least one of the variable valve train and the throttle valve to generate an intake pipe negative pressure when a predetermined condition is satisfied, wherein the negative pressure generating device controls the variable valve train so as to increase pump efficiency of the internal combustion engine and also closes the throttle valve by a predetermined amount, when a negative pressure for operation of the negative pressure mechanism is insufficient.

4 a (Amended) An internal combustion engine comprising:

a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage; and

a negative pressure generating device that controls at least one of the variable valve train and the throttle valve to generate an intake pipe negative pressure when a predetermined condition is satisfied, wherein the negative pressure generating device controls the variable valve train and the throttle valve so as not to generate torque variation of the internal combustion engine, when the intake pipe negative pressure is to be generated.

5 a (Amended) An internal combustion engine comprising:

a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage; and

a negative pressure generating device that controls at least one of the variable valve train and the throttle valve to generate an intake pipe negative pressure when a predetermined condition is satisfied, wherein the negative pressure generating device controls the variable valve train and the throttle valve such that required torque for the internal combustion engine matches actual torque thereof, when the intake pipe negative pressure is to be generated.

3. (Amended) The internal combustion engine according to claim 2, wherein the variable valve train drives at least one of the intake valve and the exhaust valve to open and close using electromagnetic force.

1. (Amended) An internal combustion engine comprising:  
a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage;

a throttle valve controller that closes the throttle valve by a predetermined amount when a predetermined condition is satisfied; and

a valve train controller that, in a case where the throttle valve controller closes the throttle valve by the predetermined amount, controls the variable valve train so as to alter at least one of the opening and closing timing and the opening amount of at least one of the intake valve and the exhaust valve with respect to a case where the throttle valve controller does not close the throttle valve by the predetermined amount.

13 ~~15~~. (Amended) An internal combustion engine comprising:

a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage;

a throttle valve controller that closes the throttle valve by a predetermined amount when a predetermined condition is satisfied; and

an intake air amount controller that controls the variable valve train to adjust an intake air amount of the internal combustion engine while retaining the throttle valve at a predetermined opening amount, when the internal combustion engine is in a predetermined operating state, wherein the throttle valve controller closes the throttle valve by the predetermined amount when the predetermined condition is satisfied while the intake air amount controller is controlling the intake air amount of the internal combustion engine.

14 ~~16~~. (Amended) The internal combustion engine according to claim ~~15~~ <sup>13</sup>, further comprising a valve train controller that controls the variable valve train such that the intake air amount of the internal combustion engine does not change when the throttle valve controller closes the throttle valve by the predetermined amount.

11 ~~17~~. (Amended) The internal combustion engine according to claim ~~11~~ <sup>7</sup>, wherein the negative pressure mechanism is an evaporation fuel reflux mechanism for refluxing evaporation fuel generated in a fuel tank into the intake passage, and the throttle valve controller closes the throttle valve by the predetermined amount when the evaporation fuel reflux mechanism needs to be operated.

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18. (Amended) The internal combustion engine according to claim 7, wherein the variable valve train drives at least one of the intake valve and the exhaust valve to open and close using electromagnetic force.

15 19. (Amended) An internal combustion engine comprising:  
a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage;

a throttle valve controller that closes the throttle valve by a predetermined amount when a predetermined condition is satisfied; and

a valve train controller that, in a case where the throttle valve controller closes the throttle valve by the predetermined amount, controls the variable valve train so as to alter at least one of the opening and closing timing and the opening amount of at least one of the intake valve and the exhaust valve with respect to a case where the throttle valve controller does not close the throttle valve by the predetermined amount.

19 23. (Amended) The internal combustion engine according to claim 15, wherein the variable valve train drives at least one of the intake valve and the exhaust valve to open and close using electromagnetic force.

20 24. (Amended) An internal combustion engine comprising:  
a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage;

an intake air amount controller that controls the variable valve train to adjust an intake air amount of the internal combustion engine while retaining the throttle valve at a predetermined opening amount, when an operating state of the internal combustion engine is in a predetermined operating region; and

a throttle valve controller that closes the throttle valve by a predetermined amount from the predetermined opening amount when a predetermined condition is satisfied while the intake air amount controller is controlling the intake air amount of the internal combustion engine.

21/25. (Amended) The internal combustion engine according to claim <sup>20</sup>24, wherein the variable valve train drives at least one of the intake valve and the exhaust valve to open and close using electromagnetic force.

22/26. (Amended) An internal combustion engine comprising:  
a variable valve train capable of adjusting at least one of an opening and closing timing and an opening amount of at least one of an intake valve and an exhaust valve of an internal combustion engine;

a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine;

a throttle valve for adjusting a flow rate of intake air flowing through the intake passage;

an intake air amount controller that controls the variable valve train to adjust an intake air amount of the internal combustion engine while retaining the throttle valve at a

predetermined opening amount, when an operating state of the internal combustion engine is in a predetermined operating region;

an evaporation fuel reflux mechanism that refluxes evaporation fuel generated in a fuel tank of the internal combustion engine into the intake passage; and

a throttle valve controller that closes the throttle valve by a predetermined amount from the predetermined opening amount when the evaporation fuel reflux mechanism needs to be operated while the intake air amount controller is controlling the intake air amount of the internal combustion engine.

23/27. (Amended) The internal combustion engine according to claim 22, wherein the variable valve train drives at least one of the intake valve and the exhaust valve to open and close using electromagnetic force.

#### REMARKS

Claims 4-9 and 11-27 are pending. By this Amendment, claims, 4, 6, 7, 9, 11, 15-19 and 23-27 are amended, and claims 1-3 and 10 are cancelled. The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicants note with appreciation the indication that claims 19-27 would be allowed upon overcoming the 35 U.S.C. §112, second paragraph rejection, and that claims 4-8 and 11-16 would be allowed if rewritten in independent form and amended to overcome the 35 U.S.C. §112, second paragraph rejection. The claims have been amended to overcome the 35 U.S.C. §112, second paragraph rejection, and claims 4, 6, 7, 11 and 15 have been rewritten in independent form. Accordingly, Applicants submit that this application is in condition for allowance.

Claims 1, 3, 9-11, 18, 19 and 23-27 stand rejected under 35 U.S.C. §112, second paragraph. The claims have been amended as suggested by the Examiner. Applicants thank the Examiner for the suggested claim amendments. Applicants submit that the claim